rates, remission rates and discontinuation rates due to adverse events were extracted and compared in a Bayesian meta-analysis. **RESULTS:** Three aripiprazole, 2 quetiapine and five olanzapine trials were identified together reporting on 2979 patients. Aripiprazole augmentation showed numerically higher efficacy rates compared to quetiapine and olanzapine. Response odds ratios (95%CI) compared to quetiapine and olanzapine were 1.34(0.82–2.06) and 1.52(1.00–2.19) respectively. Remission odds ratios compared to quetiapine and olanzapine were 1.3(0.78–2.07) and 1.26(0.77–1.92) respectively. Aripiprazole augmentation showed numerically lower discontinuation rates due to adverse events compared to quetiapine and olanzapine (OR = 0.99(0.24–2.62) and 0.77(0.23–1.89)). **CONCLUSIONS:** Amongst augmentation treatments with atypical antipsychotics in MDD, aripiprazole shows a tendency towards higher efficacy rates and lower discontinuation rates due to adverse events compared to quetiapine and olanzapine. More direct head-to-head trials are needed to assess the comparative efficacy and safety of adjunctive antipsychotics in MDD.

PMH17

OUTCOME TRAJECTORIES IN THE LONG-TERM TREATMENT OF SCHIZOPHRENIA

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OBJECTIVES: This study aimed to determine distinct subgroups of schizophrenia patients based on their illness severity at baseline and characterize those who were most improved and those who worsened the most. **METHODS:** We used data from a large 3-year prospective, multi-site, observational non-interventional study of individuals treated for schizophrenia in the United States (US-SCAP). A hierarchical cluster analysis was performed to group the patients, using baseline clinical, functional, and resource utilization measures. Improvement of outcome was determined based on the distance from the defined "worst baseline cluster" for each post-baseline measure. A trajectory analysis was used to group patients by improvement of outcome over the 3-year study. **RESULTS:** Almost all participants (99% or 872/880) with 3-year data were found in a single outcomes trajectory, characterized by minimal changes from baseline cluster over the 3-year study period. Approximately one-fourth of individuals moved to a better outcome cluster while about 17% moved to a worse outcome cluster at each year. Only 4% of patients moved from the worst/next to worst cluster to the best/next to best cluster and 16.6% moved from the best/next to best cluster to the worst/next to worst cluster. Most improved patients were more likely than all other patients to have case management, to live in a supervised housing arrangement, and get assistance with securing social services and benefits. **CONCLUSIONS:** The long-term outcome trajectory for almost all schizophrenia patients in this 3-year naturalistic observational study was stable, devoid of change from the baseline cluster. Only a very small subgroup of patients experienced marked improvements, and they were more likely to be engaged in psychosocial rehabilitation. Although current findings may affirm the value of psychosocial rehabilitation, results highlight the need to improve the relatively stagnant long-term illness trajectory of almost all chronically ill patients with schizophrenia.

PMH18

TREATMENT PATTERNS IN ATTENTION-DEFICIT/HYPERACTIVITY DISORDER; ANALYSES WITH THE RAMQ DATABASE

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OBJECTIVES: Approved treatments for attention-deficit/hyperactivity disorder (ADHD) in Canada comprise short-acting (SA) and long-acting (LA) stimulants and a LA nonstimulant medication. The objective of this study was to elucidate different drug treatment patterns to treat ADHD in Canada. **METHODS:** A retrospective prescription claims analysis of a random sample of 15,838 ADHD patients from the Quebec provincial health plan (RAMQ) database was conducted. Any patient with ≥1 physician claim with an ADHD diagnosis and a claim for a treatment approved for ADHD from July 2004 to June 2009 was considered. **RESULTS:** The mean age of the study sample was 14.0 years (SD = 8); 72.6% of the sample were males. There were a total of 416,646 ADHD prescriptions during the 5-year study period. As a proportion of total prescriptions, use of SA medications declined from 72.83% in 2004 to 26.38% in 2009, while use of stimulant and nonstimulant LA medications increased from 27.17% to 73.62% over the same period. Approximately half of the patients used both SA and LA medications either concomitantly or subsequently while approximately 30% used only SA and 19% used only LA. Among those patients who used both types of formulations, switching from SA to LA was the most frequent (27.9%) treatment pattern. A greater proportion of patients (6.4%) on LA methylphenidates required augmentation with SA medications when compared with those on LA amphetamines (1.9%; $p < 0.01$). **CONCLUSIONS:** Results of this RAMQ database analysis illustrate that over time, patients shifted from the use of SA stimulants to formulations that provide all-day coverage. Switching from SA to LA medications and augmentation of LA medications with SA medication are common treatment patterns observed in the management of ADHD with implications for patient care and the efficient use of health care resources. Supported by funding from Shire Development Inc.

PMH19

COMPARATIVE ANALYSIS OF THE EFFICACY AND SAFETY OF ESCITALOPRAM WITH SERTRALINE AND VENLAFAXINE IN THE TREATMENT OF MAJOR DEPRESSIVE DISORDER (MDD)

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OBJECTIVES: The purpose of the review was to evaluate the efficacy and safety of escitalopram compared with sertraline and venlafaxine in treatment of major depressive disorder (MDD). **METHODS:** The analysis was performed in accordance with the rules of systematic review, based on Cochrane Collaboration guidelines and recommendations of Health Technology Assessment Agency in Poland (AOTM). **RESULTS:** In this report there were two subanalyses conducted, evaluating the efficacy and safety of escitalopram in comparison with sertraline and venlafaxine, both consisted of two multicenter, parallel-group, double-blinded, randomized clinical trials. In both comparisons efficacy was evaluated, based on the mean changes in MADRS, HAM-D, CGI-S, CES-D, HAM-A and CGI-I grading scales, as well as safety analysis was performed. Period of eight weeks treatment with escitalopram and sertraline as well as venlafaxine resulted in decrease in number of MDD symptoms and quality of life improvement. Over 50% decrease in number of major depression symptoms in MADRS and HAM-D grading scales compared to baseline indicates high clinical relevance of obtained results, even though statistical significance was not reached. Safety analysis showed similar safety profiles of all drugs taken into account. There were no statistical differences between populations in any of primary endpoints, except for withdrawals from the study due to adverse events in comparison of escitalopram vs venlafaxine favoring escitalopram. **CONCLUSIONS:** Escitalopram seems to be equally efficient and safe drug as sertraline and venlafaxine in treatment of patients with MDD. The clinical-effectiveness analysis ascertained equivalence of efficacy and similarity of safety profile of escitalopram in comparison with sertraline and venlafaxine in therapy of patients with MDD.

PMH20

USE OF A LINKED HOSPITAL ADMISSIONS AND HEALTH CARE CLAIMS DATABASE IN PHARMACEUTICAL OUTCOMES RESEARCH: RESULTS OF A FEASIBILITY STUDY EXAMINING TREATMENT OF SCHIZOPHRENIA WITH ATYPICAL ANTIPSYCHOTICS

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OBJECTIVES: In pharmaceutical outcomes research using health care claims databases, periods during which patients are hospitalized have constituted "black holes", as these databases do not contain any information on pharmacotherapy received in hospital. While admission-level databases provide such information, they lack information on pharmacotherapy received outside of hospital. Recently, it has become possible to link these two types of databases. In this study, we explored their potential value to outcomes research, focusing attention on second-generation antipsychotic (SGA) treatment before, during, and after hospitalization for schizophrenia. **METHODS:** Using a linked inpatient/outpatient database, we identified all adults with ≥1 admissions for schizophrenia between January 1, 2001 and September 30, 2008. Focusing on each patient's first admission, we compiled all health care claims during the 6-month periods preceding and following hospitalization. As our interest was in the use of SGAs, our scope was limited to patients with evidence of receipt of oral ziprasidone, aripiprazole, or quetiapine ("study agents") immediately preceding hospital discharge. We then examined receipt of these agents during the 6-month periods preceding hospitalization and following hospital discharge based on outpatient pharmacy claims; receipt of study agents in hospital was examined using admission-level data. Adherence with study agents following hospital discharge was assessed using proportion of days covered (PDC); patients were deemed nonadherent if PDC fell below 80%. **RESULTS:** A total of 43 patients were identified who met all study entry criteria. Twenty-four patients (56%) had evidence of receipt of a study agent in the period preceding hospitalization. While all patients had evidence of receipt of study agents following hospital discharge, only 12% were adherent at 6 months. **CONCLUSIONS:** Linked inpatient/outpatient databases are a promising avenue for future pharmaceutical outcomes research, as they may greatly expand understanding of the complete chronology of pharmacotherapy–and associated outcomes–for many disease conditions.

PMH21

PREVALENCE AND PREDICTORS OF ANTICHOLINERGIC MEDICATION USE IN ELDERLY NURSING HOME RESIDENTS WITH DEMENTIA

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OBJECTIVES: To examine prevalence and predictors of anticholinergic medication use in elderly nursing home residents with dementia. **METHODS:** The study evaluated anticholinergic medication use in elderly (>= 65 years) nursing home residents using the 2004 National Nursing Home Survey (NNHS). Anticholinergic Drug Scale was used to classify medications as Level 1, Level 2 or Level 3 in order of their increasing anticholinergic activity. Descriptive weighted analysis was used to determine the prevalence of anticholinergic medication use in elderly dementia patients. Multinomial logistic regression within the conceptual framework of Andersen Behavioral Model (ABM) was used to examine the predictors associated with each level of anticholinergic medication use as well as concurrent use of anticholinergic medications belonging to two or more levels. **RESULTS:** According to the NNHS, 0.51 million (95% CI-0.49–0.53) or 73.62% (72.23–75.00) of the elderly patients with dementia used anticho-